

Fiber-Coupled Tunable Single-Mode Long-Wavelength Vertical-Cavity Laser**ABSTRACT**

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A light source for generating and coupling light from a first wavelength into an optical fiber. The light source includes an output laser having a first optical cavity that includes a bottom mirror located outside of the optical fiber, and a top mirror that includes a reflector located within the optical fiber. An active region between the top and bottom mirrors generates light of the first wavelength, preferably through optical pumping at a second wavelength. The reflector is preferably a Bragg reflector and may include a mechanism for altering the wavelength of the light reflected thereby as well as the distance between the top and bottom mirrors. The pumping light is preferably generated by a pumping laser that includes a second electrically pumped optical cavity having a top mirror that is electrically connected to the bottom mirror of the first optical cavity.

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